Asking about the future: Methodological insights from Energy Biographies

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Abstract

Temporality is fundamental to qualitative longitudinal research, inherent in the design of returning to participants over time, often to explore moments of change. Previous research has indicated that talking about the future can be difficult, yet there has been insufficient discussion of methodological developments to address these challenges. This paper presents insights from the Energy Biographies project, which has taken a qualitative longitudinal and multimodal approach to investigating how everyday energy use can be understood in relation to biographical pasts and imagined futures. In particular, we detail innovative techniques developed within the project (e.g. SMS photograph activities) to elicit data on anticipated futures, in ways that engender thinking about participants' own biographical futures and wider societal changes. We conclude by considering some of the significant benefits and challenges such techniques present. These methodological insights have a wider relevance beyond the substantive topic for those interested in eliciting data about futures in qualitative research.

Introduction

The importance of considering imagined futures has been highlighted in several areas of social research, such as youth transitions (e.g. Gordon et al., 2005), whilst the wider relevance of anticipated futures for everyday life is strongly emphasised within temporal theory. For example, Mead (1932) highlighted the temporal divide of past/present/future, a distinction that has been particularly significant for understanding personal biographies, whilst Felski (2000) suggests that individuals make sense of their identities by endowing them with a temporal *gestalt*, to describe a 'life time'. The process of understanding one's life as a project connects segments of experience through reflection on the past, present circumstances and anticipated future trajectories, which is acknowledged in the dynamic orientation of longitudinal studies.

Although other methodological techniques may elicit temporal data, the need to take account of people's dynamic lives has led to the development of longitudinal methodologies, which embody the notion of time (Neale & Flowerdew, 2003). Such approaches are informed by a recognition that participants' thoughts, actions, emotions, attitudes and beliefs are all

dynamic through time (Saldaña, 2003). Temporality is inherent in longitudinal research as the design comprises multiple research encounters over an extended period. For example, qualitative longitudinal (hereafter QLL) studies often involve scheduling data collection at particular intervals to capture and explore changes that occur over time and the processes involved with these changes (Farrell, 2006) and particular life events or transitions are frequently the focus of QLL research (Saldaña, 2003). The longer-term perspective offered by QLL facilitates exploration of how changes emerge and are lived out in the context of individual lives. Therefore in QLL studies such as Energy Biographies, which foreground issues of time and change, it is possible to map the social world temporally (Elliott *et al*., 2008) to consider these issues in detail.

Reflexivity is also central in QLL research as participants are asked to reflect back or project forward (McLeod, 2003). This reflexivity involves recognition that past and future both influence how the participant experiences the present (Brannen & Nilsen, 2007) through repercussions and rewards of past decisions, or preparations for future trajectories. The recursive, comparative movement between past, present and future in QLL interview studies can yield insights into the histories, aspirations and orientations of individuals (McLeod, 2003) and their strategies for making sense of the past or navigating their futures (Neale and Flowerdew, 2003). Investigations that can instigate temporal reflexivity (Henwood and Shirani, 2012a), and the study of risk and identity in a changing world, foreground how important it is to consider that people might act differently today in light of how they envisage their own and others' futures – both in their personal lives and as part of society-wide transitions and transformations (Henwood and Pidgeon, 2012).

Drawing on the methodological writings of Weber, Adam (2009) highlights the importance of opening up futurity and contemporary social extension into the long-term future as issues for social science consideration and debate. She argues that Weber highlights the influence of future-based reasons on action, and thus the importance of not losing sight of the futures that guide actions in the present. Similarly, Rosenberg and Harding (2005) suggest that the future is not an empty category but is often as rich and full of consciousness as the past, involving anticipatory hopes and fears. Given the significance of anticipated futures for situating present experiences (an issue we return to below), different approaches have been developed to elicit data. Use is made, for example, of structured techniques such as questionnaire and survey questions about future plans (e.g. Pidgeon et al., 2014 in relation to energy research).

This approach has been invoked in large birth cohort studies (such as the National Child Development Study, British Cohort Study and Millennium Cohort Study) where children have been asked to describe their aspirations for the future. Other approaches include timelines or writing tasks where participants are asked to document imagined futures (Henwood & Shirani, 2012b). This technique has been used in large-scale studies spanning wide historical time periods; for example, Mass Observation issued a directive in 2009 asking participants to imagine their personal and wider social situation in one year's time. In qualitative studies, researchers may also opt for more open-ended approaches, such as asking participants about the future during an interview (Phoenix et al., 2007). Whilst each of these techniques offers an innovative way to discuss the future, they also raise certain difficulties. For example, participants may find written exercises challenging and may not complete them (see Henwood and Shirani, 2012b for discussion). In addition, whilst young people may be used to routine discussion of their future educational and employment plans, asking older people about the longer-term future can raise issues around finitude, although this does not mean they are unwilling to discuss the future (Bornat, forthcoming). Subsequently, in terms of ethical research practice it is also important to consider how participants are differently positioned in relation to the future. Previous life events may also impact upon individual ability or willingness to imagine the future, as experience of unexpected transitions may highlight a sense of uncertainty, meaning participants are reluctant to plan for the future (Shirani & Henwood, 2011).

Asking about the future is highly relevant for energy and environmental research given, for example, debates about environmental justice which draw on notions of intergenerational sustainability, (e.g. UNWCED, 1987) or the societal transitions needed to address socio-environmental issues such as climate change. One approach to asking about anticipated futures in energy research is scenario analysis. Examples of research using such techniques include; backcasting – where a desirable future is identified and then the processes necessary to reach it are delineated; scenario development through deliberation or modelling; and use of existing scenarios as stimulus for engagement. Pidgeon et al. (2014) used a scenario technique in a large national study to prompt public deliberation about energy system transitions and through this explored the values underpinning public perceptions. However, whilst this approach garnered many important insights into public views, it is linked more closely to shared 'imaginaries' of the social future, rather than shining a light on the links between individual biographies and such imaginaries.

In the Energy Biographies project we have sought to develop innovative techniques to elicit futures data, focusing on complimentary techniques that facilitate the explication of both biographical futures (as are commonly the focus in QLL studies) and wider social issues (which are often a concern for energy research). This paper presents a detailed documentation of three strategies, including some of the technical and ethical issues that were raised, illustrated with participant responses, and discussion of the kind of data elicited. By focusing in such detail, we aim to provide a practical account to inform methodological development in approaches to researching the future.

Study Design

The Energy Biographies project aims to explore people's current energy use in the context of their lifecourse trajectories and across the different spaces people inhabit through their everyday lives. Within four case site areas in the UK, interviews were conducted with individuals on three occasions over a one year period. Between interviews, participants were also involved in multimodal activities designed to evoke further insights into energy use as part of the lifecourse[1]. Figure 1 outlines the different stages of the project.

[nsert Figure 1 here]

The project's four case site areas were selected to represent different socio-demographic and community contexts. Our first two case sites were from the city of Cardiff; Ely-and-Caerau, a socially-deprived inner city ward, and Peterston-Super-Ely; an affluent commuter village on the city's outskirts. Whilst the two areas represent quite different socioeconomic profiles, they both had community groups that actively campaigned about energy and environmental issues. The third case site is the off-grid Lammas Tir-y-Gafel ecovillage in Pembrokeshire, West Wales. The ecovillage comprises nine households, with residents building low-impact homes from sustainable materials and making their living from the land. Our final case site involved employees of the Royal Free Hospital in north London. The hospital has a number of energy-saving and carbon reduction targets, meaning this workplace-based case site

[1] For a detailed description of each research stage, see http://energybiographies.org/our-project/project-design/

offered a different perspective on the transfer of energy-saving messages between work and home. In each area we made contact with a case site representative who facilitated recruitment by circulating information about the study to the wider community, asking those who were interested in participating to contact the research team.

74 people participated in first round interviews. Participants were aged 18-80 and had a wide variety of relationship, living and working circumstances. The majority (n=58) were White British and there was a relatively equal representation of men and women. After initial interviews, participants were asked if they would be interested in further participation and a sub-sample of 36 (aged 18-70 and an equal number of men and women) from across the four case site areas took part in two rounds of subsequent interviews and activities. These participants were selected to ensure the longitudinal sample included individuals with a diverse range of demographic characteristics and life circumstances.

Qualitative semi-structured interviews covered a number of themes (see Figure 1) to create meaningful encounters rich in biographical, narrative and contextual detail, whilst activities and subsequent discussions provided an opportunity for participant-directed conversation. The project was designed to include multimodal activities, however the nature of these were developed during the course of the research, after the project team had had an opportunity to reflect on the outcomes of interview 1. This ability to adapt and develop later waves of data collection in response to initial outcomes is a particular strength of QLL research. In the remainder of the paper we detail three of the methodological approaches we employed in order to demonstrate some of the benefits and challenges of these techniques to elicit talk about the future[2].

Interview 1 – asking about the future

Initial interviews were designed to provide insights into participants' current circumstances through a detailed exploration of everyday energy use and discussion of some aspects of their life history. In light of an underlying recognition that anticipated futures have an impact on present lives, as noted above, finding out how people saw their futures can be viewed as an

[2] As activity 1 and interview 2 were not designed to elicit talk about the future we do not include discussion of them here. For more information about what these phases involved see http://energybiographies.org/our-project/project-design/

important aspect of understanding current energy use. Subsequently, participants were encouraged to think about their future in response to direct questions focused on biographical transitions, with prompts around how this may impact on energy use. For example:

- Are there any particular life changes/events you expect to make in the next 5/10 years? What kind of lifestyle changes might this prompt?

- How do you think lifestyles might be different for your children/grandchildren when they become adults? What would you like to see change/stay the same?

Several people felt able to respond to these questions and provided answers about aspects of their anticipated future trajectory. For some, these were general notions of family transitions they hoped to make e.g. having children. For others, responses offered a more detailed focus on specific aspects of their lives that they thought would change in relation to energy use:

> I'd like to have my own place then yeah of course hopefully if my own bills are all on my head I'll be very careful all the time, switching things off … sometimes we have the heat on here [shared housing] and we don't really want it but the others are cold so you have to … but if I'm living by myself I can turn the heating off whenever I feel like and turn it on just to suit my comings and goings rather than thinking about anyone else. (Marie, London)

When imagining futures for younger generations, responses were overwhelmingly negative, including comments on problematic economic and employment situations as well as anticipated energy shortages.

> [w]hile I'm generally a kind of, the glass is half full person, quite optimistic by temperament, I do kind of look at the world and see the trends and think, shit (Laughter), what kind of my life are my kids going to have? It is clear that our western lifestyle is totally unsustainable in itself, I mean even in terms of resource terms, of that pot of energy that was fossil fuel, you know, on its way out (Jeremy, Peterston)

Participants from our Lammas ecovillage case site offered some of the most detailed responses to these interview questions on anticipated futures. Indeed, it seemed that concerns about the longer-term future of mainstream society had been a motivating factor in their decision to live in a low-impact way:

> [w]e have quite a strong feeling that the world is a very unstable place at the moment, I think we're not really planning on particular courses of action; we are doing a lot of planning for the future but it's mostly about building resilience within our family and community units more than it is about any particular outcome … I don't think we'd even really presuppose that we could even go to the shops and buy food next year really… I think we feel it as being quite unstable… (Darren, Lammas)

Darren's extract shows that an explicit concern with the future stability of mainstream society has led his family to live in an alternative way now, highlighting how insight into anticipated futures is important for helping us to understand participants' present circumstances and past choices. This is an issue we consider in forthcoming work (see also Adam, 2009).

In contrast to the clear ideas about futures envisaged by some of our participants, others felt unable to respond to our direct questions, finding it difficult to discuss the future in this way:

> At the moment this will sound like a really badly thought out plan but I tend not to think that far ahead because the future does actually scare me (Lucinda, London)

> I didn't know I was going to be out of work and that would have been my choice. You know, really don't know what's around the corner so we don't look into the future as such. (Christine, Ely)

As Christine's extract suggests, participants indicated that past experiences of unexpected events highlighted a sense of the future as uncertain and unpredictable, therefore difficult to plan for (see also Shirani & Henwood, 2011). Although only a small number of our interviewees described the future as frightening in this way, these responses raise important ethical issues about potentially causing distress to participants by asking about futures, an issue we return to later.

Whilst the first interview covered a broad range of issues, the direct question and answer format placed some limitations on the elicitation of temporal data. In particular, the difficulty some participants found in responding to the questions meant we did not achieve the depth of reflection we would have liked. In designing the subsequent activities and interviews we sought new ways to address these challenges.

Activity – photographing everyday life

Energy Biographies was designed to include photograph activities to offer different means for participants to engage with energy use as part of their everyday practices[3]. As it has previously been suggested that attempts to research everyday life often fail to capture the complexity of the mundane (Phoenix & Brannen, 2014), we included visual approaches as a different modality in order to help to make energy in everyday life more visible. Once we had encountered some of the limitations of a direct question and answer approach for exploring futures in interview 1, in designing the multimodal activities we took inspiration from a pilot study by Mountian et al. (2011), which involved the use of text message (SMS) prompted photographs. Their study involved 13 participants (colleagues of the researchers) who were sent 8 SMS-prompts each day for a week (at varied times from 9.30am to 9.30pm) asking them to take a picture of what they were doing, tape record their assessments and impressions and answer six questions on the activity. Mountian and colleagues found that some participants described the activity as invasive and raised issues around power relations – for example, not having control about when they took the picture, being exposed to colleagues, and feeling the camera phone acted as a regulatory gaze. However, others described enjoying the activity and the opportunity for reflection it provided.

In deciding on our own approach, we felt that with a number of significant modifications, this technique would help us to access different kinds of data relating to everyday routines and energy use. Moreover, through the activity we sought a point of comparison across the sample by asking all participants to take pictures on the same dates and times, potentially elucidating similarities and differences between case sites. Participants were offered camera phones to enable participation in this activity. Providing equipment raises a number of ethical issues, however we saw this as important for enabling participants to have an equal opportunity to participate, and to facilitate further development of this innovative methodology, which has the potential to offer new insights into everyday life.

The SMS activity took place between interviews 2 and 3. In an attempt to minimise the sense of intrusion described by participants in Mountian et al.'s study, we reduced considerably the frequency of SMS contact and level of immediate reflection required. Instead we contacted

[3] See e.g. http://energybiographies.org/wp-content/uploads/pdf/Protocol_Energy%20Biographies2.pdf

participants across all case sites on ten occasions over a period of several weeks, asking them to take a picture of what they were doing and return this to the research team by multimedia message (MMS) or email. Participants were notified in advance of the dates when they would receive a SMS, although not the specific times. Whilst arguably this influenced the sense of daily routine documented by the task, our participants did not report feelings of intrusiveness and most said they enjoyed the activity. However, despite the reduced frequency of contact, some described similar sentiments to those in Mountian et al.'s study; for example, feeling the regulatory gaze and that their images were being judged.

> [y]ou'd text me and I would be doing something really mundane I was like gosh I wish I'd been doing something exciting [laughs] … quite a few of them nothing was on and I thought oh this is quite good actually I don't feel too bad. Where you know I'd hate it like if had everything like the Christmas tree on [laughs] every single light on you know the stereo blasting you know TV's on and I'm watching a video … so I did kind of think oh ok this is quite good actually you know this is quite random. (Russell, London)

In a further effort to reduce intrusiveness, we had explained that images did not have to be too personal and could be representative of an activity e.g. an empty bath to signify bathing. We emphasised this so participants did not feel obliged to provide any pictures they felt intruded on their privacy, or that of others who had not consented to be part of the research, which resulted in a relative absence of people in the images. In another attempt to avoid intrusion, the latest we contacted participants was 7pm. In interview reflections, participants subsequently suggested that contact did not occur late enough to capture social activities, which may be another explanation for the absence of people in the images and would be a relevant issue for future use of this methodological approach. However, it is important to note that people were always involved in the images – as the photographer – and could describe their own standpoint. Whilst some researchers have advocated analysing images themselves, others point to the way visual accounts are partial and meaning cannot be ascertained by images alone (see e.g. Tinkler, 2013 for discussion). In our research, we found that much of the relevant explanatory detail associated with the images, particularly the position of people, would have been lost without the subsequent interview discussions.

Participants were asked to return the pictures to us immediately after receiving the SMS, whereupon we compiled a photo narrative for each individual with images and captions (provided by the participant when they sent us the image, or added by them during the

subsequent interview) in chronological order (See image 1). This was then taken back for discussion in interview 3 and used as a tool to facilitate reflections on pasts and futures. For example, participants were asked to comment on the photo narrative as a representation of everyday life and whether anything important was missing, then asked to consider how things might have looked different had we asked them to undertake the task a year earlier. Following this, we asked participants how things might be different, first one year and then fifteen years in the future. The photo narratives appeared to help participants to talk about the future by giving them something tangible to refer to.

[Insert image 1 here]

Participants frequently used particular images to anchor their thoughts. For example, when asked to contemplate fifteen years time, Dennis had quite specific ideas related to one of his images that represented driving.

> I'm very keen to get an electric car and … I would sort of say maybe in ten to fifteen years' time that it's a lot more a possibility than now. Maybe my needs would have changed a little bit by then, my son would probably be driving so maybe we only need it as a family maybe only have you know a petrol car and maybe then a little electric car for me and my wife to sort of go around for local trips or something like that. So yeah I think there may be some changes as the kind of household grows into different needs … Maybe by then the kind of car hire you can sort of do … where you hire them by the hour if and when you need them so you have Car Club membership maybe that is more widespread in ten/fifteen years' time (Dennis, London)

Whilst Dennis reflects on how the family's needs are likely to change, he also had clear ideas about the kind of technological advances that might make alternative modes of transport possible in the future. By drawing on the representations in his timeline, he discusses biographical changes but also the structural and technological adjustments more widely that would make different ways of living possible. This suggests that the tangible reference points provided by the photographs were helpful in encouraging reflections on anticipated futures.

Alerting participants to the contact dates in advance meant a number of people had made a note of that day's activities in a diary, so it was still discussable if an image was absent due to a technological failure. Participants were largely positive about this task, suggesting they liked these moments of engagement as brief interludes in everyday life, which did not feel too

onerous or intrusive and prompted further thoughts about the research topic, as Steve indicates:

> I do think it's made me think about things, even just walking around and getting a text saying take a photo of what you're doing now, straight away you take the photo and you think what's this got to do with energy use? And then you think well actually it has got something to do with you know actually straight away that's a trigger to make you think about this stuff (Steve, Ely)

Whilst participants could often articulate ideas about their own biographical futures in relation to the timelines, it could still be particularly challenging for some to think about changes in wider society.

> How will the society be like? [Laughs] That's a broad question. It's really difficult to answer that. (Anna, Lammas)

Some people felt that the pace of change to-date made the future impossible to predict, others thought that life might be relatively similar, albeit with updated computer and communication technologies. Whilst this photograph task helped us to extend talk about personal futures, the extract from Anna illustrates continued challenges for many people in visualising wider social futures, which we attempted to address with our final methodological technique.

Interview 3 – Wider social futures?

We recognise that it can be challenging for people to imagine future social change, given high levels of uncertainty and circumstances beyond individual control. However, in light of concerns about climate change, energy security and energy affordability (Skea et al., 2011), it is important to understand how people imagine the ways in which energy use might change in future, or if they anticipate continuity of current lifestyles and feel unprepared for change. Resources for helping participants think about these wider issues in the future are somewhat limited. For example, whereas past images and films are available alongside personal memories to facilitate discussion of prior social change, similar depictions of the future are more restricted. However, in fields where technology and resources are central – such as energy use – there have been some attempts to imagine the future and present this in a visual format, which we utilised for the third interviews.

As one of Energy Biographies' specific concerns was domestic energy use, we sought visions of future homes and encountered both images and video material. We opted to use videos as they provided a broader view of relevant issues, for example, depicting a number of technologies whilst also showing people's reactions to and interactions with them, which would not have been feasible to capture using static images. Whilst being an image and sound based medium, video can also capture and represent other senses (Pink, 2003), as well as physical and emotional reactions. In our study it also provided a different modality from the previous task to sustain participant engagement, an important consideration in QLL research (Elliott et al., 2008).

The use of video in social research is increasingly popular (e.g. see Jewitt, 2012 for discussion). Like images, videos have an ability to represent particular times and places via a medium commonplace in everyday life, capturing detail and depth. However, much of the focus to-date has been on the development of video content as part of the research encounter. For example, participants keeping video diaries, or filming aspects of their everyday lives and interactions, which are subsequently explored analytically by the researcher (Ross et al., 2008). Less attention has been paid to the use or 'repurposing' (Jewitt, 2012) of pre-existing video in research, although studies have shown a number of academic articles citing publicly available video content (Kousha et al., 2012). There appear to be few examples of practice where videos have been used as a stimulus for discussion, which is perhaps surprising, given the ubiquity of online publicly available video content. In particular, YouTube – a video sharing website established in 2005 – offers wide-ranging video content, with over 6 billion hours of video viewed per month[4]. As the viewing of online video content is likely to be an increasingly familiar activity in the daily lives of participants (Weller, 2012), we decided to utilise this medium via two videos depicting homes of the future at different points in time.

Firstly, we selected a video from the 1950s demonstrating the Monsanto house of the future; an exhibit originally part of Disneyworld's 'Tomorrowland'. The video shows a family visiting the house and then a lived imagining of what it would be like if this was their home[5]. The film is largely promotional and emphasises the benefits of the plastic products made by Monsanto. Though major technical change was portrayed in the film, the family dynamics depicted did not show evidence of change; with 1950s gender roles clearly evident. After

[4] https://www.youtube.com/yt/press/en-GB/statistics.html
[5] https://www.youtube.com/watch?v=DoCCO3GKqWY

watching the video participants were asked to comment on what they did or did not like about it. The interviewers subsequently raised the following questions to encourage participants to think about wider social changes and plans, e.g:

- What do you think the video says about how people 50-60 years ago thought about the future?
- Was anything surprising?
- What do you think would be different in envisaging a future house today?

In discussing the video, participants showed some temporal reflexivity, describing the historical context of its production (see also Henwood and Shirani, 2012a) and how they felt the future would have been seen at the time.

> I think they thought everything would be very easy and effortless basically, life was made so easy that you could just press a button and that would give you time … you could have a free life because you're not bound to chores because the house, the house looks after itself … they were coming from a time of war and deprivation and they had in the beginning of the 20th century there was a lot of economic problems so all this is a part of the past and we're looking into the future which is the opposite. So it's abundance, it's an easy life… it's more enjoyment without thinking if it's practical, if it's functional, if it's economically viable and things like that. (Suzanna, London)

Most were fairly critical about the materials used in the house, which reflected a time when energy and other resources needed to create plastics were seen as abundant. By contrast, they suggested contemporary visions of a future house would involve more natural materials and energy-saving technologies. Through these discussions, participants who had found their own futures challenging to talk about were able to reflect on visions for wider social futures.

> I think that it would be minimalistic, it would be sleek lines, it would be considering energy use and in this environment making sure that the heat is not lost and is more effective, so efficiency of heat and also I think they would probably consider waste so whether that would be carbon dioxide waste in the heating system or whether it's your actual water waste from your property, whether that would be able to be recycled, whether you would be using rainwater for things other than drinking (Christine, Ely)

This discussion led to the second video, from a 2012 Channel 4 series 'Home of the Future'[6]. In this series, a multi-generational family's home was completely refurbished with a range of technologies (including for energy generation) and the programmes documented the family's experience of living everyday life in this environment. As above, participants were asked for their initial reaction to what they did and did not like about the depiction. They were then asked more specific questions e.g. if there were alternative visions of the future they would prefer to see instead. Again, this enabled us to engender much more detailed talk about wider social futures than we had elicited using other approaches.

Many commented that this depiction of the future bore multiple resemblances to the 1950s vision. However, the contemporary vision of increasing reliance on gadgets was regarded as less excusable given current public knowledge about energy and environmental issues. As such, the videos prompted participants to reflect on issues of societal ethics, responsbility and morality.

> The amazing thing about that is that how similar it was to the 1950's one. Very gadget-focused … It doesn't have the feel of the way I would see the house of the future because it seems like more consumption and more reliance on electricity and things like that … In fact, the 1950's one has an excuse because they didn't know. … How could you predict global warming in the 1950's? You never would have done … So these people [2012] have got no excuse! What are they doing? (Graham, Lammas)

Some elements of the video – such as a hydroponic system for growing plants in the house – received mixed responses. Some participants disliked the disconnection with nature this implied, and questioned the nutritional (and financial) value of this way of producing food. Yet whilst others may not have wanted the technology in their own homes, they saw ways that it could be useful for dealing with future societal challenges, suggesting the methodological approach helped them to engage with issues around wider social futures.

> I think it's a brilliant idea you know this challenge of having to feed 9 billion people, the more food production you could get into city flats the better. Yeah I thought that was wonderful (Jonathan, Peterston)

After discussion of these representations of domestic life, participants were finally asked to consider how changes could potentially transfer to their work environments; for example,

[6] http://www.channel4.com/programmes/home-of-the-future/4od#3301480

video conferencing rather than face-to-face meetings. Whilst some could see the potential benefits of these ways of working in terms of reduced energy consumption from commuting and reduced traffic congestion, several people expressed concern about potential social fragmentation and isolation, with London hospital employees in particular suggesting such changes would be potentially problematic for patient care. Even Jack, who ran a business from home, highlighted concerns about the potential consequences of widespread adoption of these ways of working.

> But there's a price to pay for it and it's not just the money, you know you walk around the city and it looks pretty dire sometimes and everyone is in their little houses and you know in lots of futuristic films you see cities of the future and they look, they're wrecked, everything looks dreadful, there's advertising hoardings everywhere and you know people are flying around on hover boards and stuff but the actual cities are dirty and it's kind of realising that as people create their environments in their minds and in their interiors they're less bothered about what's going on out there. (Jack, Ely)

Therefore whilst the technological solutions presented in the videos were seen by some to have potential environmental and economic benefits, there were also implications in terms of wider societal costs – loneliness, disconnect, and degeneration of the physical environment. This suggests the methodological approach facilitated discussion of both positive and critical anticipated futures for individuals and society-wide.

Using existing videos in qualitative research has a wider potential beyond the substantive topic discussed here. For example, although the depictions largely focused on issues related to domestic energy use, discussion elicited talk around gender and historical transitions in addition to personal life. Like the photographs, the films provided participants with something tangible to base their discussion on, yet they were able to also consider other issues relevant to their everyday lives (such as work environments) and wider society. Therefore, whilst our study had an advantage in that there exist multiple depictions of future energy technologies from which we could choose, other studies could invoke a similar approach given the potential for the interview discussion to go beyond what is depicted.

Concluding Discussion

This paper has presented a detailed account of methodological techniques used as part of the Energy Biographies project in order to elucidate innovative ways for researching futures. Following others, we argue that understanding anticipated futures is key to situating current experience and therefore an important aspect of studies into everyday life. The three approaches we have outlined here offer different benefits and challenges for accessing talk about the future, which we discuss before drawing out overall conclusions.

Our experience suggests that asking directly about the future can provide a useful opportunity for people to engage with their thoughts and plans, and some participants are able to provide quite detailed responses. However, we also found that others struggled, or did not wish to contemplate the future, sometimes due to past experiences or their current lifecourse stage. We suggest, therefore, that it is important to be attentive to ethical issues and consider different approaches to discussing the future in a variety of ways. The multimodal approaches we have utilised appear to make some aspects of the future easier to discuss, particularly for participants who had previously found adopting a future perspective challenging.

In asking people to photograph everyday activities, then discussing how things may look similar or different in the future, we found that the image timeline gave participants something tangible to refer to and anchor discussion of the future around. The activity itself was not unproblematic given it represented a somewhat partial picture of everyday life, and therefore would have been of more limited use without the subsequent discussion during the interview. This was partly due to the design of the activity, where images were used primarily as a prompt for discussion, rather than as objects of analysis in and of themselves (Tinkler, 2013). By asking people to take photographs of what they were doing at the time, participants were able to capture things they may not otherwise have considered relevant to the research but that frequently bore some relationship to energy use, which became evident through the interview discussion. Therefore, without this SMS technique we may not have elicited such extensive data around everyday energy use and potential future changes. Ultimately, this technique did help a number of people discuss the future, albeit largely within the realm of their own biographies, by providing specific aspects of everyday life to situate discussion around. Adopting this methodological approach to capture these everyday occurences could therefore be relevant for other research that aims to explore day-to-day life.

The video task was designed to expand the discussion to wider social issues, although again the futuristic representations were largely confined to the domestic sphere. However, once people had an idea about different technological possibilities, our prompts also initiated consideration of how this could transform their working lives, or have implications for wider society more generally. As discussed above, the potential for discussion to go beyond what is explicitly portrayed means this approach could be invoked for other research topics where the availability of relevant depictions is more limited. These activities therefore demonstrate a range of strategies for accessing different kinds of talk about the future – both biographical and wider societal – which could be tailored to meet the needs of individual research projects.

Whilst the techniques we have discussed could be invoked as multimodal strategies in research more generally, we suggest there are specific benefits to utilising them in the context of qualitative longitudinal work. Given the design of revisiting people over time, the increased amount of time participants spend engaged with the research in QLL studies provides greater opportunity to include a range of methodological techniques. For example, discussion of the video clips often took up to 60 minutes of the third interview, which may be too great an amount of time to spend on a single activity in a one-off study, but represents a smaller proportion of time in a study with multiple research encounters.

Including a range of activities in a QLL study can also help to sustain participant interest and engagement over time, in order to aid sample maintenance (Weller, 2012). In particular, the gaps between interview encounters offer opportunities for multimodal activities as a way of maintaining contact with participants as well as potential occasions for data collection. There was no attrition in the Energy Biographies study and, although participants were largely positive about the multimodal activities, it is unclear to what extent they contributed to sample maintenance. A further specific benefit for QLL studies is that these techniques can encourage temporal reflections, particularly ways of exploring longer-term futures. This has particular relevance in QLL research, where time is central methodologically and substantively.

By combining multiple approaches within a carefully crafted study, our project makes an original contribution to the development of social research methodologies for investigating anticipated futures, which have potential to be utilised beyond the substantive research area foregrounded here. In bringing together these approaches we have highlighted their potential

strengths, as well as related weaknesses, in helping participants to extend temporal discussions. This represents an important contribution to the development of strategies that can facilitate discussions of longer-term pasts and futures, which could have particular benefits for QLL and temporally-focused research more widely.

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